Testimony of Robert L. Sluder
Vice President – Operations, Williams Gas Pipeline – West
BEFORE THE U. S. SENATE COMMITTEE ON COMMERCE, SCIENCE AND TRANSPORTATION

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INTRODUCTION

Mr. Chairman and Members of the Committee, my name is Robert L. Sluder. I am Vice President of Operations for Williams Gas Pipeline – West. I appreciate this opportunity to appear before the Committee on behalf of Williams to discuss natural gas pipeline safety issues.

Williams is a diversified energy and communications company with operations in all 50 states. Our Williams Gas Pipeline unit consists of five wholly owned interstate natural gas pipeline systems. We also have partial ownership in several other systems. Approximately 16% of all natural gas consumed in the United States is transported on Williams' system.

Our western operations include Northwest Pipeline, which runs from the New Mexico/Colorado border, through Utah, Colorado, Wyoming, Idaho, Oregon and Washington to the Canadian border. We operate 1,400 miles of pipe in Washington and have done so since the system was constructed in the late 1950s. PG & E Gas Transmission – NW also operates an interstate pipeline in Washington. Virtually all of the natural gas consumed in the state is delivered through these two pipeline systems. Our primary customers are the four local distribution companies operating in Washington – Cascade Natural Gas, Puget Sound Energy, Avista and Northwest Natural. We also deliver gas directly to some industrials and municipalities. Attached to my testimony is a map, which shows the Northwest and PG & E Gas Transmission systems and the service territories of the local distribution companies we serve. Williams has recently proposed to construct a new line from our Sumas, Washington, location across Whatcom County to Vancover Island.

SUMMARY

At the outset, let me summarize my testimony. The interstate natural gas pipeline industry has an excellent safety record – superior to other modes of transporting fuel or products. Operating and maintaining a safe system is embedded in every aspect of our business. The cost associated with having an accident – both human and financial – far outweigh the costs of a responsible safety program.

We understand and accept the fact that Federal, state and local governments want to

oversee the industry's safety efforts so that the public can be assured that we are making every reasonable effort to insure safety. States already play an important role in insuring the safe delivery of natural gas by virtue of their jurisdiction over intrastate pipelines, which comprise 75% of the total pipeline mileage in the country. States also have jurisdiction over "one-call" or "call-before-you-dig" programs. Since 80% of the accidents on intrastate natural gas pipelines involve third party digging activity, the strength of a state's one-call laws is a major factor in interstate pipeline safety.

We strongly believe, however, that for interstate pipeline systems, the Federal government is the appropriate body to be the safety regulator. Our systems cross state boundaries. Our operations and safety activities are planned and implemented on a system-wide basis. If we faced separate regulations in every state in which we operate, we believe the net result would be a less efficient, less safe system overall.

NATURAL GAS AND OUR SAFETY RECORD

For natural gas pipelines, there is no more important objective than to operate and maintain a safe system. It is in our own best interest to do so. Natural gas transmission pipelines have an excellent safety record. Attached to my testimony are two charts. The first shows the safety record of natural gas pipelines compared to other forms of transportation. The second shows the number of incidents, injuries, and fatalities for natural gas pipelines over the last ten years. While this record encourages us, we continuously seek ways to improve our current practices and seek new technologies to further enhance safety.

Accidents have serious and unacceptable consequences. Accidents can cause injuries or death, to our own employees and the public. They also can disrupt service to our customers and limit the full utilization of our systems for an indefinite period of time. Accidents cause the public and government officials to question our commitment to safety and the credibility of the Office of Pipeline Safety (OPS). The recent accident here in Bellingham demonstrates this quite clearly.

Unless the public believes that the industry can produce, transport and distribute natural gas safely, we cannot stay in business, and America would lose its cleanest fossil fuel.

I should note that the physical differences between natural gas and petroleum products are such that the characteristics of a natural gas pipeline accident differ from that of a petroleum pipeline accident. Natural gas is primarily composed of methane gas. Natural gas is lighter than air, insoluble in water and does not cause environmental damage when released. Most of the incidents that occur in natural gas transmission pipelines are small leaks. These leaks are easily found by pipeline personnel during their routine inspections and are fixed. In a worst-case scenario—a total pipeline rupture—only the area directly around the rupture presents a direct risk to the public at the initiation of the rupture. The size of this area depends on the pressure

and size of the line but generally should not extend more than 600-feet on either side of the pipeline rupture. After the initial rupture, the noise of the escaping natural gas or, if there is ignition, the resulting fire will cause people to move away from the location immediately.

The probability of such an event occurring along the interstate natural gas transmission pipelines in the U.S. is small. During the period of 1986-1999, onshore interstate gas transmission accidents have caused no fatalities and nine injuries among the general public. This is a commendable record for a system that transports over one quarter of the nation's energy needs.

STEPS WE TAKE TO ASSURE SAFETY

A natural gas pipeline approaches safety from a system-wide perspective. Pipelines implement and comply with the minimum safety standards imposed by the Office of Pipeline Safety. Williams, along with other interstate pipelines, has internal procedures that exceed these minimum requirements in many respects.

The first step in the safety process is to make sure that the line is constructed properly. Safety actually begins at the mill where the steel is made. Pipeline representatives inspect the pipe at the mill to insure that it meets quality standards. During construction, the integrity of coatings designed to protect against corrosion are checked and imperfections are corrected. Welds are quality checked with x-rays. The line is tested with water to a pressure significantly higher than its maximum operating pressure prior to going into service.

Once a pipeline is in the ground, it is monitored in a number of ways. Among the procedures we employ, employees physically walk and inspect the pipeline corridor periodically. Companies also fly the right-of-way at least once a month, often more. In both cases, we look for signs of unusual activity on the right-of-way or any discoloration of plants or grasses that might indicate a small leak. Companies participate in one-call programs designed to prevent unintended digging near pipelines and other underground facilities. Employees test for leaks using analyzers and verify the effectiveness of cathodic protection, electrical systems that prevent corrosion on a pipeline. Valves are inspected and compressor engines are maintained. Any missing pipeline markers used to identify the location of the pipeline are replaced. In areas where we suspect corrosion may have degraded the integrity of the pipe, we do periodic internal inspections utilizing specialized detection equipment commonly known as "smart pigs".

Specific measures are incorporated into the regulations to raise the level of safety of natural gas transmission pipelines as the population density around our pipeline increases. These categories of population density, known as class locations, range from rural (Class 1) to heavy urban (Classes 3 and 4). As the population density increases, more stringent design, construction, inspection and maintenance practices are stipulated. We are required to walk our

entire system once a year to monitor the area around the pipeline for changes in population density. When these changes occur, the pipeline operator is required to insure that the installed pipeline meets the criteria for pipe design that applies in the higher class location. If it does not meet these requirements, the pipe is replaced, the operating pressure in the line is reduced, or similar safety measures are undertaken to achieve the required margin of safety. The new class location also requires increased frequency of many different inspections.

A pipeline operator also gains a tremendous amount of knowledge about the condition of the line as systems are expanded, new meter stations or delivery points added, and laterals attached. While these activities are not directly safety related, they involve digging up parts of the system and documenting the condition of the pipeline, thereby giving the operator additional information to assess the integrity of the pipeline.

All of the information that a company gathers about its system goes back into tailoring the safety activities of the company, so that parts of the system in the greatest need of attention receive greater scrutiny. For example, we decide where and when to run smart pigs based on this accumulated knowledge. Smart pigs are very good at providing certain types of information about the condition of the pipe, but they do not provide a complete solution. We have to judge what inspection tools and practices will be the most effective at any given location on the pipeline.

Federal law requires pipelines to have public education programs. We provide residents who live along our rights-of-way with information about the pipeline, including what activities to look for and what to do in an emergency. We provide information and our emergency phone number to call in the event of seeing anything unusual. We work with local emergency response officials to educate them about the nature of our operations and the appropriate actions to take if there is an accident. We encourage our employees to interact with local officials and educate them about the pipeline. Unfortunately, our experience often is that emergency response personnel and local officials are often so pressed by the immediate demands facing them that getting their attention to learn about pipeline facilities that have never caused them any problems can be difficult.

The level of safety effort is substantial. A recent survey by our trade association, the Interstate Natural Gas Association of America (INGAA) revealed that its pipelines members, operating 160,000 miles of pipe, spent about $560 million a year, or about $3,515 per mile on safety related efforts. Our transmission pipeline industry, since the 1950s, has supported and been active in two organizations that research ways to improve safety practices and technology—the Gas Research Institute (GRI), and the PRCI (Pipeline Research Committee International). These organizations budget millions of dollars each year for these activities. In addition, since 1990, the INGAA Foundation has supported the efforts of companies who develop and promote safety technology in the marketplace.

Without question, natural gas pipelines are committed to safety and have consistently

demonstrated a commitment to invest substantial sums to maintain and protect their systems and the surrounding environments. However, conditions differ from system to system and from location to location on a given system, making it difficult to create one-size-fits-all rules for when each activity is performed. Lines in damp soil will require a different type of attention than lines in the desert. Lines in areas where coal mining has occurred are susceptible to subsidence problems, whereas lines in other areas are not. In our case, we have found that at certain hillside locations here in Washington, the ground has become unstable after periods of uncharacteristically prolonged rainfall. We have experienced landslides that pulled the steel pipeline apart. We now have instituted a special monitoring program identifying and targeting these locations, but it is a localized problem, not system-wide.

My point is that the details of an effective safety program will vary from pipeline to pipeline and even on a given system. An effective program will focus resources differently from year to year, depending on the needs of the system.

REACTION TO WASHINGTON STATE ACTIONS

Williams made presentations to the Governor's task force during its deliberations, and I have spoken before the committees of the state legislature implementing the Task Force recommendations. I do not want to repeat all of that testimony here, but there are two key areas I believe it would be useful to address in the context of this hearing.

- National Standards vs. State Authority

The report from the Governor's task force raises the issue of whether to retain exclusive Federal jurisdiction over interstate natural gas and hazardous liquid lines or to give states authority in this area as well. It is our strong conviction that retaining exclusive Federal regulation of interstate pipeline safety is critical. Let me give you several reasons why we believe continuing the current structure will benefit the public, both from the standpoint of safety and service.

As I mentioned, pipelines are operated as integrated systems. Our Northwest pipeline has natural gas entering the system at three locations: gas produced from the San Juan basin of Colorado and New Mexico; gas produced from the overthrust belt area of the Rocky Mountains, and gas produced in Canada. Gas moves to local distribution customers, end users, or other pipeline customers in a variety of ways that change as pricing patterns change. We have designed a system that allows this to occur without regard to the weather or other factors that influence demand for natural gas. Safety work is scheduled so as not to interfere with the basic operation of the system.

If states have the authority to impose more stringent safety standards, they could interfere with operational flexibility and thereby impact our ability to serve customers, including

customers in other states. For example, if Idaho decided to increase the safety margin by requiring that pipelines operate at lower pressures, our ability to deliver gas to Oregon and Washington would be adversely affected. If a state were to require hydrostatic testing, whole lines would have to be taken out of service, wreaking havoc on our ability to serve. Every time a state would adopt a new or different testing or inspection requirement, it would reduce an operator's flexibility and ability to operate the system according to the needs of the system as a whole.

Allowing states to impose different safety standards would also complicate the compliance process. Generally, safety teams move up and down the system performing tests and maintenance. In fact, the industry has moved more toward this functional approach in order to achieve greater uniformity of safety programs across the systems. If these individuals have to apply different standards in different states, it will erode the very uniformity we are trying to achieve.

Just as it makes sense for pipelines to adopt a holistic approach to safety, oversight by inspectors should take the same approach. When the Office of Pipeline Safety conducts an inspection, they are not limited to examining our practices within a single state, but can look system-wide. Also, Federal enforcement allows for consistency in the interpretation and application of regulation. If we get into a situation where different state inspectors interpret regulations differently, the resulting confusion will hurt, not help, safety.

Finally, if state actions force a company to allocate its safety dollars in an inefficient manner, the result will be less, not more, safety overall.

I do not mean to imply that States do not have an important role to play in pipeline safety. States now have safety authority over the approximately 1.5 million miles of intrastate natural gas lines, including the natural gas lines of local distribution companies. This is 75% of the total pipeline mileage so states already have jurisdiction over the vast majority of pipeline activity.

States also have jurisdiction over the single greatest opportunity to improve safety on interstate and intrastate systems: one-call systems that can help prevent accidents caused by parties digging into pipelines by mistake. Of the accidents that do occur on interstate natural gas pipelines, about 80% of those involving deaths or injuries are the result of these accidental dig-ins. Those most likely to be affected are the excavators themselves.

The industry has pleaded for stronger one-call programs for years and led the fight for a Federal statute aimed at encouraging states to strengthen their programs. Too often, state laws in this area exempt some excavators and don't provide for effective enforcement. While the cause of the Bellingham accident is still under investigation, it appears from what has been learned that excavator damage played some role in the accident. The Office of Pipeline Safety has sponsored an initiative called "Common Ground" and their June, 1999 report reviews the

"best practices" found in one-call programs around the country. We urge the State to review its law in light of these recommendations and strengthen the law where appropriate.

- Public Right to Know

As I mentioned earlier, pipelines already provide a good deal of information to state and local organizations and to individuals who live along our pipeline rights of way. Still, we are willing to discuss what kind of additional information would be useful to local officials and residents.

I noted that Federal law already requires pipelines to have public education programs. We participate in one-call programs. We provide residents who live along our rights-of-way with information about the lines and phone numbers to call in the event of seeing anything unusual. We work with local emergency response officials to educate them about the nature of our operations and the appropriate actions to take if there is an accident. We encourage our employees to interact with local officials.

The advent of the Internet may provide another opportunity to educate interested persons in pipeline activities. The Office of Pipeline Safety maintains a web site with a wealth of information and it may be possible to build on that effort.

One additional word of caution. At times in the past, the industry has been warned by the federal government that pipeline facilities may be targeted by terrorists and asked to take steps to guard against possible attacks. For this reason, the industry has been wary of providing detailed information indiscriminately. Given the growth of the Internet, it is probably unrealistic to think this information could be kept confidential, but security concerns should be given some thought as part of this process.

CONCLUSION

If there is one point that I hope to impress upon you today, it is that safety is the result of a combination of activities that vary from company to company and location to location. Across the board mandates to conduct inspections at specific intervals or to conduct specific tests at specific intervals rarely make sense in practice.

In summary, the interstate natural gas pipelines are proud of our safety record. At the same time, we are actively seeking ways to improve upon that record, whether its by developing new and better technology, re-examining our current methods, or doing a better job of educating the public and excavators about pipeline safety. We certainly cannot promise that there will never be another accident, but we remain committed to taking every effective action

we can to prevent the next one from ever occurring. We are also committed to working with the Office of Pipeline Safety as they do their job of overseeing the safety efforts of the industry. We hope that Congress will give us and the Office of Pipeline Safety the flexibility we need to accomplish this mission.